WE CLAIM AS OUR INVENTION

~~Patent Claims~~

1. Method for digital radio transmission of data between a fixed station (1) and at least one mobile station (2, 3) at one of a plurality of carrier frequencies (f_1, f_2, ...), in which

- the data are transmitted in a plurality of time slots (Z1, Z2, ...) using a time-division multiplex method (TDMA),
- the change from one carrier frequency to another carrier frequency requires a predetermined time period in the order of magnitude of one time slot,

and

- the data are transmitted in active time slots (Z1) each of which is followed by an inactive time slot (Z2) in which no data are transmitted, and in which
- the time duration of an inactive time slot (Z2) is shorter than that of an active time slot (Z1).

2. Method according to Claim 1, characterized in that the time duration of an inactive time slot (Z2) is half that of an active time slot (Z1).

3. Method according to Claim 1 or 2, characterized in that a time-division mutiplex duplex (TDD) method is used.

4. Method according to one of Claims 1 to 3, characterized in that a transmission time frame contains four active time slots (Z1, Z3, Z5, Z7) for transmitting from the fixed station (1) to the mobile station (2), and four time slots (Z9, Z11, Z13, Z15) for transmitting from the mobile station (2) to the fixed station (1).

5. Method according to one of the preceding claims, characterized in that the transmission takes place in a 2.4 GHz band.

6. Arrangement for digital radio transmission of data, having a fixed station (1) and at least one mobile station (2, 3), between which the data can be transmitted in a plurality of time slots (Z1, Z2, ...) using the

time-division multiplex method (TDMA), and at a plurality of carrier frequencies (f_1, f_2, ...) using the frequency-division multiplex method (FDMA),

- the fixed station (1) and the at least one mobile station (2, 3) each having an RF module (4, 5) by means of which the carrier frequency for transmitting during one of the time slots can be chosen,
- RF modules (4, 5) require a predetermined time period in the order of magnitude of one time slot to change from one carrier frequency to another carrier frequency, and
- a transmission time frame has active time slots (Z1) in which data are transmitted, each of which is followed by an inactive time slot (Z2) in which no data are transmitted,
- the time duration of the inactive time slot (Z2) is shorter than that of the active time slot (Z1).

7. Arrangement according to Claim 6, characterized in that the time duration of the inactive time slot (Z2) is half that of the active time slot (Z1).

8. Arrangement according to one of Claims 6 or 7, characterized in that a transmission time frame contains four active time slots (Z1, Z3, Z5, Z7) for transmitting from the fixed station (1) to the mobile station (2), and four time slots (Z9, Z11, Z13, Z15) for transmitting from the mobile station (2) to the fixed station (1).

9. Arrangement according to one of Claims 6 to 8, characterized in that the carrier frequencies are in a 2.4 GHz band.

10. Arrangement according to one of Claims 6 to 9, characterized in that the RF modules (4, 5) change the carrier frequencies during an inactive time slot.